

# Is That FOD or an CAD About

By AME1 Randall Brogdon

An AME's most dreaded phrase is "FOD in the cockpit." The ensuing search for that FOD—especially during evening hours on the flight deck of an aircraft carrier—makes the task even more unpleasant. Now combine an explosive device that is ready to detonate and could fire the ejection seat, and the situation rapidly becomes a life-threatening event for anyone in the immediate area. On this particular "FOD in the cockpit call," the manual override (MOR) cartridge in one of our Hornets was about to fire.

This job had begun like any other cockpit-FOD search. The AME shop was called to find a knob from the throttle grip that had come off in flight. I am an AME QAR and was asked to assist the shop. It was a dark night, and aircraft 311 was down until we found the FOD. I approached the aircraft on elevator 3 and noticed one of our AMEs sitting in the seat. Another shipmate was searching the upper equipment bay. I climbed onto the port, leading-edge extension (LEX), and the AME in the seat climbed onto the starboard LEX so we both would have an unob-

structed view of the cockpit. We began to look down our respective side of the seat when my counterpart yelled, "What in the world?" He had discovered a serious problem.

He told a third AME to move toward the back of the jet and called me to look at the discrepancy. I couldn't believe what I saw. The sear for the MOR cartridge's firing pin almost had retracted fully. A closer look showed the linkage that connects the sear was bent into a V shape, causing the sear to be pulled out. We immediately disconnected the right and left trombone tubes and the primary catapult manifold to prevent damage should the CAD fire. I then instructed both technicians to notify maintenance control, to get an ejection-seat-pin set, and to grab manifold caps and plugs. I immediately called over the flight-deck coordinator and told him about our problem.



The cockpit utility or "Grimes" light looks harmless.

# Ejection Seat to Fire?

The command decided to call in EOD and to talk with them about our next step. As we waited, I thought about how best to defuse the CAD. It looked like we could straighten the linkage, allowing us to reengage the sear and to slide it back into its normal position. This action would “safe” the cockpit.

The EOD personnel still hadn’t arrived, so we pinned the rest of the seat and installed the caps and plugs. When the camouflage commandos arrived, I escorted them to the aircraft and briefed them about this potentially explosive situation. After many creative ideas on various methods to destroy the seat bucket, they agreed to try my idea. I knew this procedure would work but also saw why EOD gets paid a little more than us. My plan worked, and the sear was back in place. With the safety pin installed, we

were able to breathe a big sigh of relief.

After investigating this problem, we concluded the utility light in the cockpit had jammed against the seat bucket as the pilot lowered the seat. That light caught on the linkage and bent it, gradually pulling the pin from its normal position. Had the MOR cartridge fired on deck, the pilot’s restraints would have released. The drogue gun also would have fired the drogue chute through the canopy glass, and the time-release mechanism would have fired, deploying the parachute through the canopy.

Had the aircraft been airborne, the wind-blast would have caught the drogue chute, causing the parachute to deploy fully. With the pilot’s restraints already released, the chute could have pulled the pilot through the shattered canopy and out of the aircraft. That scenario could have resulted in the loss of aircrew and aircraft.

This incident reminded us how important it is to do cockpit safety checks. It is critical to make sure all switches and pins are in the correct position and all gear is stowed before electrical power is applied. This step will prevent damage when the seat is moved.

The squadron issued a hazrep about this hazard. Our aviators use NVG-compatible finger lights or similar light products, so we have little need for the utility or “Grimes” light. We have requested that NavAir investigate removing this item to avoid a similar incident.

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